

Appl. No. : 09/936,257
Filed : January 11, 2002

REMARKS

In the Office Action mailed July 1, 2003, the Examiner rejected Claims 22-28. In the present Amendment and Response to Office Action, Applicants have amended Claim 22. Applicants have also added Claims 29-38. Applicants respectfully request entry of the amendments and added claims and full consideration of the remarks contained herein.

Confirmation of Election of Species/Interview Summary

The Examiner has required restriction among the following groups of claims:

- I. Claims 22-28, drawn to an apparatus; and
- II. Claims 17-21, drawn to a method.

In a telephone interview on May 21, 2003, Applicants' representative elected to prosecute Claims 22-28. Applicants hereby affirm, with traverse, the earlier oral election of Group I (Claims 22-28). Consequently, Applicants have cancelled herewith the non-elected Claims 17-21.

Amendments to the Claims

Applicants have amended the claims to further clarify the subject matter that Applicants regard as the invention.

For example, independent Claim 22 has been amended to recite that "a pattern of grooves is arranged in the surface of said top part," rather than "at least one of said parts." Similarly, to maintain correct antecedent basis for claim terms, Applicants have also amended dependent Claim 24 to recite "the top part," rather than "at least one of the parts having grooves in its surface." Support for this language can be found in the Application as originally filed. *See, e.g.*, the Application, pp. 3-4.

Also, for purposes of proper antecedent basis, Claim 24 has been amended to recite "an origin of said spiral line" rather than "the origin of said spiral" and "an end of said spiral line," rather than "the end of said spiral." Applicants submit that these amendments simply correct obvious clerical errors and add no new matter.

Accordingly, Applicants respectfully submit that the amendments add no new matter and are fully supported by the Application as originally filed.

Newly Added Claims

Applicants have added new Claims 29-38. Applicants respectfully submit that the new claims add no new matter and are fully supported by the Application as originally filed. For example, support for the language regarding gas-introduction holes “arranged to form at least one spiral line” can be found on pages 3-4 and Figure 2 of the Application, as originally filed. Support for the language regarding supporting the wafer at a “substantially constant vertical height” and “substantially independent of a flow of gas having a flow component which causes rotation of said wafer” can be found on page 3 of the Application as originally filed. Support for the language regarding the “segment of a circle” can be found on pages 3 and 5 and Figure 4 of the Application, as originally filed. Additionally, support for the language regarding gas-introduction holes configured so that gas flows out of one hole while gas enters the other, or vice versa, can be found in page 3 of the Application, as originally filed.

Rejections Under 35 U.S.C. § 103

The Examiner has rejected Claims 22-28 under 35 U.S.C. § 103(a) as being unpatentable over Frijlink (U.S. Patent No. 4,860,687) in view of Granneman et al. (U.S. Patent No. 6,183,565). The Examiner has stated that Frijlink teaches “a device for rotating disk type objects ... and further discloses gas introduction holes (Fig. 5b) from a reference surface essentially perpendicular to it while the surface has spiral shaped grooves ...” (emphasis added).

Applicants respectfully submit that the pending claims, as amended herewith, are patentably distinct.

Applicants note that independent Claim 22 now recites “a top part and a bottom part between which a chamber for accommodating a wafer is delimited” and that “a pattern of grooves is arranged in the surface of said *top* part.” (emphasis added). In contrast, as shown in its Fig. 5b, Frijlink teaches grooves on a *bottom* part, gravitationally below the substrate. *See also* Frijlink, Col. 6, lines 13-24. Moreover, Frijlink teaches that locating the grooves on the bottom part is important because the force that causes rotation of the disk is generated by the viscosity of the flowing gas that contacts the bottom of the disk. To contact the bottom of the disk, Frijlink teaches grooves, for expelling gas, on the bottom part of the reactor, the grooves facing the bottom surface of the disk. *See* Frijlink, Col. 5, lines 18-41 and Col. 6, lines 13-24. As such, Applicants submit that Frijlink does not teach that “a pattern of grooves is arranged in

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the surface of said top part,” as recited in Claim 22. Applicants also submit that Granneman et al. does not satisfy this deficiency. Consequently, Applicants respectfully submit that the combination of Frijlink and Granneman et al. does not teach all limitations of Claim 22 and that Claim 22 is not obvious in view of the art of record.

Applicants submit that newly added Claims 29-38 are also patentably distinct over the art of record.

Accordingly, Applicants submit that the pending claims are allowable over the art of record. Applicants have not addressed the further rejections of dependent claims as being moot in view of the amendments and remarks herein. However, Applicants expressly do not acquiesce in the Examiner’s findings not addressed herein. Indeed, Applicants submit that the dependent claims recite further non-obvious features of particular utility.

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CONCLUSIONS

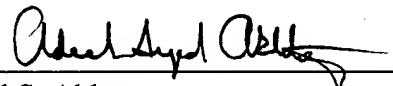
In view of the foregoing remarks, Applicants submit that the Application is in condition for allowance and respectfully request the same. If some issue remains that the Examiner feels may be addressed by Examiner's amendment, the Examiner is cordially invited to call the undersigned for authorization.

Please charge any additional fees, including any fees for additional extension of time, or credit overpayment to Deposit Account No. 11-1410.

Respectfully submitted,

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